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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/809,901

03/26/2004

Hiraku Murayama

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07/31/2007

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EXAMINER

HOEKSTRA, JEFFREY GERBEN

ART.UNIT

PAPER NUMBER

3736

MAIL DATE

DELIVERY MODE

07/31/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/809,901

Applicant(s)

MURAYAMA ET AL.

Examiner

Jeffrey G. Hoekstra

Art Unit

3736

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 7-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 7-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 05/07/2007 has been entered.

Notice of Amendment

2. In response to the amendment filed on 05/07/20/07, amended claim(s) 1, canceled claim(s) 5-6, and new claim(s) 12-14 is/are acknowledged. The current rejections of the claim(s) 1-4 and 7-11 is/are *withdrawn*. The following new and reiterated grounds of rejection are set forth:

Priority

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

4. The disclosure is objected to because of the following informalities: at least page 21 line 7 and page 22 line 1 contain typographical errors where boxes appear to take the place of units of measure. Appropriate correction is required.

5. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is

requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

6. Claim 3 is objected to because of the following informalities: the positive recitation of "a center layer ... and a surface layer of a mixture" in lines 3-4 appears to duplicate the "center layer", "surface layer", and/or "mixture" structure of claim 1 and appears to render the claim indefinite. Appropriate correction is required.

7. Claim 4 is objected to because of the following informalities: the positive recitations of "the content" in lines 3 and 4 appear to lack antecedent basis and appear to render the claim indefinite. Appropriate correction is required.

8. Claim 8 is objected to because of the following informalities: the positive recitations of "the content" in lines 7 and 8-9 appear to lack antecedent basis and appear to render the claim indefinite. Appropriate correction is required.

9. Claim 9 is objected to because of the following informalities: the positive recitation of "the content" in lines 8-9 appears to lack antecedent basis and appears to render the claim indefinite. Appropriate correction is required.

10. Claim 11 is objected to because of the following informalities: the positive recitation of "the content" in lines 1-2 appears to lack antecedent basis and appears to render the claim indefinite. Appropriate correction is required.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 1-4 and 7-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Chandrasekaran (US 6,093,157). Chandrasekaran discloses a composite guidewire (22,80,82), comprising:

- a distal end portion (the right portion of the guidewire in Figure 1), a main body portion (the left portion of the guidewire in Figure 1), and an intermediate portion (the middle portion of the guidewire in Figure 1) disposed between the distal end portion and the main body portion;
- wherein said main body portion comprises: a center layer (34,60,78) formed of a first material comprising a NiTi based alloy (column 4 lines 3-5); a surface layer formed of a second, more rigid material comprising stainless steel (49,64) (column 2 line 59 – column 3 line 2 and column 5 lines 35-67); and (c) an intermediate layer (48) formed of a mixture of said first and second materials (column 4 line 66 – column 5 line 10) between said center and surface layers (as best seen in Figure 5);
- wherein said main body portion has a structure in which said center layer, said intermediate layer, said surface layer are structurally disposed in this order from a center of said main body portion toward an exterior of said main body portion (as best seen in Figure 5) (column 2 line 59 – column 3 line 2);
- wherein said distal end portion is formed of said first material, and is continuous with the center layer of said main body portion (as best seen in Figures 7-8);

- wherein said intermediate portion comprises: the center layer (34,60,78) formed of the first material comprising a NiTi based alloy and an intermediate surface layer (48) formed of the mixture of said first material and said second material;
- wherein the mixture is decreased in the content of said first material toward said surface layer and increased in the content of said second material toward said surface layer such that a compositional gradually increasing gradient is formed in a radial direction (column 2 line 59 – column 3 line 2 and column 4 line 66 – column 5 line 10);
- wherein a weight ratio of the first to second material in the mixture is capable of being in the range of 1:9 to 9:1 and more specifically in the range of 3:7 to 7:3 because this ratio is inherently dependent upon material selection (as cited by Applicant, see Specification at least page 8 lines 1-4); and
- wherein said main body portion is capable of being formed by a sintered body, said sintered body having said center layer, said surface layer, and said intermediate layer, wherein said center layer is capable of being formed by sintering a powder of said first material, said surface layer is capable of being formed by sintering a powder of said second material, and said intermediate layer is capable of being formed by sintering a powder of said mixture of said first material powder and said second material powder.

Response to Arguments

13. Applicant's arguments with respect to claims 1-4 and 7-14 have been considered but are moot in view of the new ground(s) of rejection.

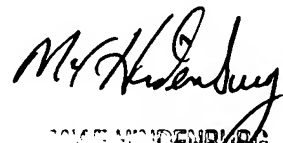
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey G. Hoekstra whose telephone number is (571)272-7232. The examiner can normally be reached on Monday through Friday, 8:00 a.m. to 5:00 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Max F. Hindenburg can be reached on (571)272-4726. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/J.H./
Jeff Hoekstra
Examiner, Art Unit 3736


MAX F. HINDENBURG
PATENT EXAMINER
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